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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,360	09/11/2003	Fumiyoshi Ikkai	09354.0008-00	1839

22852 7590 08/21/2006

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EXAMINER	
BERMAN, SUSAN W	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/659,360	IKKAI, FUMIYOSHI	
	Examiner	Art Unit	
	Susan W. Berman	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed 06/14/2006 have been fully considered but they are not fully persuasive.

In response to applicant's arguments, the rejections of record under 35 U.S.C. 102(b) as being anticipated have been rewritten to include "alternatively, under 35 U.S.C. 103(a) as being unpatentable over". With respect to applicant's argument that the references do not teach ultraviolet radiation to polymerize the disclosed compositions, it is the examiner's position that ultraviolet radiation polymerization or thermal polymerization would be expected to provide products having the same structure and/or properties. The reasons are that radiation and heat are merely different forms of energy used to initiate polymerization and it is the kinds of monomers, initiators and polymerization medium (aqueous solution, suspension or oil-in-water emulsion) that determine the structure and/or properties of the products formed.

Cywar et al: Product by process claims are considered to be anticipated by a product obtained by a different prior art process if the product obtained would be expected to have the same structure and/or properties as the instantly claimed product, in the absence of a showing of evidence to the contrary. Although the process disclosed by Cywar et al comprises thermal polymerization instead of ultraviolet radiation polymerization in an aqueous solution, the gel product formed would be expected to have the same structure and properties because it is obtained by polymerizing the same kinds of acryloyl monomers in the presence of a persulfate initiator. It is agreed that the irradiation step taught by Cywar et al is used to reduce residual monomer content (or to complete polymerization) in the polymerization product after drying to remove water. Applicant has not provided any evidence to show that the products obtained by the process in the instant claims has a different structure or properties than the prior art product. With respect to claim 29, the claim, as written, requires only a synthetic polymer gel, which is taught by Cywar et al, as the "cosmetic composition". Therefore, the rejection of claims 11-20 and 29,

which recite polymerization in an aqueous solution, is maintained. Applicant's argument with respect to claims 22 and 24 are persuasive because Cywar et al do not mention polymerizing in a suspension or in an oil-in-water emulsion. It is agreed that the expectation of obtaining a product having the same structure and/or properties cannot be supported by the different process conditions.

Yada et al '788: Applicant argues that Yada et al do not employ UV radiation in the presence of a persulfate. However, the issue is whether the product obtained by polymerizing the disclosed monomers in the presence of a persulfate results in a polymer gel having the same properties as the instantly claimed polymer gel. The difference in manner of activating the initiator would not be expected to provide a different product because the initiating free radicals formed by thermal energy or by radiation energy are known in the polymerization art to be the same initiating radicals and would be expected to produce the same kinds of products, in the absence of a showing to the contrary.

Rejection under 102(b)/103(a) over Itoh et al: Applicant argues that Itoh et al do not disclose polymerization initiated by UV radiation in the presence of a persulfate initiator. It is agreed that Itoh et al disclose that polymerization can be initiated by exposure to high energy rays, by using a polymerization initiator, such as a persulfate, or by exposure to high energy rays rather than ultraviolet rays in the presence of a polymerization initiator. The disclosed products are aqueous poly(meth)acrylamide gels. The issue is whether the product obtained by polymerizing the disclosed monomers in the presence of a persulfate or by exposure to high energy rays in the presence of a photopolymerization initiator, as taught by Itoh et al, is a polymer gel having the same properties as the instantly claimed polymer gel. The difference in manner of activating the initiator or the difference in the initiator would not be expected to provide a different product, in the absence of a showing to the contrary. With respect to claim 29-30, the claims, as written, require only a synthetic polymer gel made in aqueous solution or a dispersion of a synthetic polymer gel as the "cosmetic composition", both of which are taught by Itoh et al. With respect

to claim 31, Itoh et al, as set forth in the rejection of record, teaches adding particulate metal oxide, which is a known filler and can also be a pigment.

Rejection under 103(a) over Itoh et al: Applicant argues that Itoh et al do not provide motivation to employ photopolymerization in the presence of persulfate initiators. As set forth in the rejection of record, Itoh et al specifically teach that the disclosed polymerization methods can be combined when applying high energy rays, such as ultraviolet light, in the presence of a polymerization initiator (column 8, line 64, to column 9, line 8). The method comprising ultraviolet radiation and a photoinitiator is described in column 7 and the method of free radical polymerization in the presence of a redox initiator, such as a persulfate and a reducing agent, is described in column 8, lines 31—52. Thus the disclosure of Itoh et al includes an embodiment wherein the monomers and, optionally, a filler, are polymerized by exposure to UV light in the presence of a photoinitiator and/or a persulfate initiator. Since Itoh et al clearly suggest combining the elements of the disclosed polymerization methods, improper hindsight reconstruction has not been employed in the rejection of record.

Claim Rejections - 35 USC § 102/103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11-20 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by or alternatively, under 35 U.S.C. 103(a) as being unpatentable over Cywar et al (6,262,141). Cywar et al disclose a method for preparing an acrylic polymer comprising preparing an aqueous solution of an acrylic monomer, a photoinitiator and a persulfate compound, thermally polymerizing the monomer and irradiating with UV light to reduce residual monomer by further polymerization. Gel particles are disclosed. Cywar et al also teach in the description of prior art that it is known to combine redox/azo

system with a photopolymerization process (column 1, lines 7-24, and lines 55-61). See column 3, lines 7-25, column 4, lines 46-67, column 5, line 51, to column 6, line 26, column 7, lines 36-40, lines 63-66, column 8, lines 9-14, and the examples. The disclosure of Cywar et al anticipates the instant claims because an aqueous solution of the required monomers and a persulfate initiator is formulated and thermally polymerized to obtain acrylic polymer gel particles. The comprising language in the instantly claimed method encompasses the thermal polymerization step taught by Cywar et al. Although the process disclosed by Cywar et al comprises thermal polymerization instead of ultraviolet radiation polymerization in an aqueous solution, the gel product formed would be expected to have the same structure and properties because it is obtained from the same kinds of monomers in the presence of a persulfate initiator, in the absence of evidence to the contrary.

Claims 11-20, 29 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by or alternatively, under 35 U.S.C. 103(a) as being unpatentable over Matz et al (6,691,715). Matz et al teach conventional solution polymerization techniques to polymerize acrylic and/or acrylamide monomers in the presence of sodium persulfate to provide products for cosmetic use or for applications involving fillers (column 11, line 64, to column 12, line 50, and column 6, lines 55-64). Matz et al do not mention UV radiation. The products obtained by the thermal solution polymerization method taught by Matz et al would be expected to be the same as the products obtained by the instantly claimed method because the same monomers are being polymerized in aqueous medium in the presence of a persulfate initiator.

Claims 11-20 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by or alternatively, under 35 U.S.C. 103(a) as being unpatentable over Yada et al (4,690,788). Yada et al disclose a process for preparing polymer gel particles from acrylic and/or acrylamide monomers (column 4, lines 3-64, and examples 1 and 4). Yada et al teach thermally activatable initiators such as persulfates for thermal

polymerization and photoinitiators for photopolymerization. Yada et al do not teach photopolymerization in the presence of persulfate initiators. However, the gel polymers produced by the process disclosed by Yada et al would be expected to be the same as the gel polymers produced by the instantly claimed process, in the absence of evidence to the contrary. The reason is that Yada et al teach polymerizing the same kinds of monomers in aqueous solution by either thermal polymerization in the presence of a persulfate initiator or by photopolymerization.

Claims 11-20, 22, 24 and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by or alternatively, under 35 U.S.C. 103(a) as being unpatentable over Itoh et al (5,519,088). Itoh et al disclose aqueous gels comprising a polymer of (meth)acrylamide, particulate metal oxide, and an aqueous medium. Water and miscible solvents are taught in column 6, photoinitiators in column 7 and persulfate initiators in column 8. Itoh et al teach that polymerization can be initiated by exposure to high energy rays, by using a polymerization initiator or by exposure to high energy rays in the presence of a polymerization initiator. Example 18 discloses a persulfate as thermal initiator. Itoh et al do not specifically teach photopolymerization in the presence of persulfate initiators. However, the gel polymers produced by the process disclosed by Itoh et al would be expected to be the same as the gel polymers produced by the instantly claimed process, in the absence of evidence to the contrary. The reason is that Itoh et al teach polymerizing the same kinds of monomers in aqueous solution by either thermal polymerization in the presence of a persulfate or by photopolymerization.

Claims 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by or alternatively, under 35 U.S.C. 103(a) as being unpatentable over Abrahams (3,963,685). Abrahams discloses a hydrophilic water-insoluble, organic solvent soluble polymer prepared by polymerizing a hydroxyalkyl methacrylate in water. Abrahams teaches that a chemical initiator can be obviated by utilizing irradiation (column 2,

lines 59-62). Abrahams also teaches that a free radical catalyst, such as potassium persulfate, can be used (column 2, lines 63-68). The polymers produced by the process disclosed by Abrahams would be expected to be the same as the polymers produced by the instantly claimed process, in the absence of evidence to the contrary. The reason is that Abrahams teaches polymerizing the same kinds of monomers in aqueous solution by either polymerization in the presence of a persulfate free radical initiator or by photopolymerization.

With respect to each of the rejections of product claims set forth above: The burden is hereby shifted to applicant to establish by effective argument and/or objective evidence that the prior art product(s) or process(es) do not necessarily possess the characteristics of the claimed products or processes. Note In re Spada, 911 F. 2d 705, 709, 15 UPQ2d 1655, 1658 (Fed. Cir. 1990), "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not". Note In re Marosi, 710 F 2d 799, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See MPEP 2113. The reference teaches a product that appears to be the same as the product set forth in the product by process claims, although produced by a different process.

Claim Rejections - 35 USC § 103

Claims 1-10, 21, 23 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh et al '088. The disclosure of Itoh et al is discussed above. Itoh et al teach that the two disclosed polymerization methods can be combined when applying high energy rays, such as ultraviolet light, in the presence of a polymerization initiator (column 8, line 64, to column 9, line 8). Thus the disclosure of Itoh et al includes an embodiment wherein the monomers and, optionally, a filler, are polymerized by exposure to UV light in the presence of a photoinitiator and/or a persulfate initiator. The method wherein

gel products prepared with filler particles suggest the gel particles of instant claims 26 and 27. It would have been obvious to one skilled in the art at the time of the invention to formulate an aqueous solution of water-soluble monomers, as taught by Itoh et al, and to irradiate the solution with UV light in the presence of combinations of the disclosed initiators, such as a persulfate for radical polymerization and a photoinitiator, because Itoh et al teach that the two polymerization initiation methods disclosed can be combined when using ultraviolet light.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W. Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Berman

SB
~~12/4/2005~~
8/12/2006 (SB)

Susan W Berman
Primary Examiner
Art Unit 1711